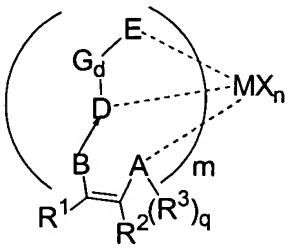
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-11 (canceled)

Claim 12 (currently amended): A catalytic system for olefin polymerization or copolymerization comprising a catalyst having the following formula:



wherein:

A, B,D, E, G, and connecting bonds comprise a tridentate ligand; and wherein

A represents a metal-coordinating moiety selected from the group consisting of an oxygen atom-containing moiety, a sulfur atom-containing moiety, a selenium atom-containing moiety, a nitrogen atom-containing moiety, and a phosphorus atom-containing moiety;

B represents a chemically inert moiety selected from the group consisting of a nitrogen atom-containing moiety, a phosphorus atom-containing moiety, and a substituted or unsubstituted hydrocarbyl moiety;

D represents O, S, Se, **or** a metal-coordinating moiety selected from the group consisting of an oxygen atom-containing moiety, a sulfur atom-containing moiety, and a selenium atom-containing moiety;

E represents a metal-coordinating moiety selected from the group consisting of an oxygen atom-containing moiety, a sulfur atom-containing moiety, a selenium atom-containing moiety, a nitrogen atom-containing moiety, and a phosphorus atom-containing moiety;

G represents a chemically inert substituted or unsubstituted hydrocarbyl moiety and an inert functional group;

R^1, R^2, and R^3 each individually represents hydrogen or a chemically inert substituted or unsubstituted hydrocarbyl moiety, R^1 and R^2 being optionally linked to form a ring;

M represents a transition metal selected from group 3 to group 11, M being linked to each of A, D, and E by a covalent or a coordinate covalent bond;

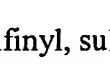
X represents a weakly coordinating monovalent ligand;

d is 0 or 1;

q is 0 or 1;

m is 1, 2 or 3; and

n is 1, 2, 3 or 4 as needed to balance the charge on M.

Claim 13 (currently amended): The catalytic system as recited in claim 12, wherein A is selected from the group consisting of O, S, sulfinyl, sulfonyl, Se,  , —

$NR^{23}R^{24}$, $-N(O)R^{25}R^{26}$, $\begin{array}{l}\diagdown PR^{27}\\ |\end{array}$, $-PR^{28}R^{29}$, $-P(O)R^{30}R^{31}$, and $-Se(O)R^{39}$, wherein R^{22}, R^{23}, R^{24}, R^{25}, R^{26}, R^{27}, R^{28}, R^{29}, R^{30}, R^{31}, and R^{39} each individually **represents** hydrogen, halogen, or a substituted or unsubstituted hydrocarbyl group.

Claim 14 (currently amended): The catalytic system as recited in claim 12, wherein D is selected from the group consisting of O, S, sulfinyl, sulfonyl, Se, $\begin{array}{l}\diagdown NR^{22}\\ |\end{array}$, —$NR^{23}R^{24}$, $-N(O)R^{25}R^{26}$, $\begin{array}{l}\diagdown PR^{27}\\ |\end{array}$, $-PR^{28}R^{29}$, $-P(O)R^{30}R^{31}$, and $-Se(O)R^{39}$, wherein R^{22}, R^{23}, R^{24}, R^{25}, R^{26}, R^{27}, R^{28}, R^{29}, R^{30}, R^{31}, and R^{39} each individually **represents** hydrogen, halogen, or a substituted or unsubstituted hydrocarbyl group.

Claim 15 (currently amended): The catalytic system as recited in claim 12, wherein E is selected from the group consisting of O, S, sulfinyl, sulfonyl, Se, $\begin{array}{l}\diagdown NR^{22}\\ |\end{array}$, —$NR^{23}R^{24}$, $-N(O)R^{25}R^{26}$, $\begin{array}{l}\diagdown PR^{27}\\ |\end{array}$, $-PR^{28}R^{29}$, $-P(O)R^{30}R^{31}$, and $-Se(O)R^{39}$, wherein R^{22}, R^{23}, R^{24}, R^{25}, R^{26}, R^{27}, R^{28}, R^{29}, R^{30}, R^{31}, and R^{39} each individually **represents** hydrogen, halogen, or a substituted or unsubstituted hydrocarbyl group.

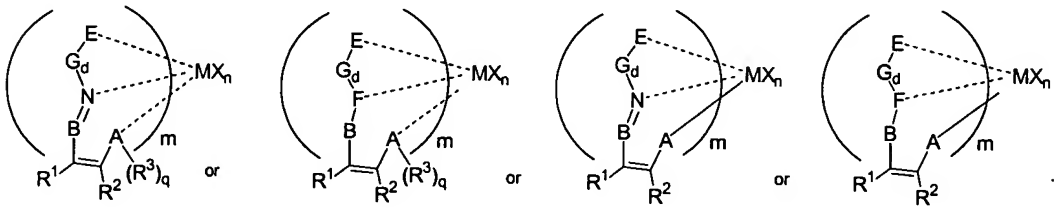
Claim 16 (previously presented): The catalytic system as recited in claim 12, wherein B and G are each a chemically inert substituted or unsubstituted hydrocarbyl moiety.

Claim 17 (currently amended): The catalytic system as recited in claim 12, wherein M is selected from the group consisting of Ti (IV), Zr (IV), Hf (IV), Cr (III), Fe (III), Fe (II), Ni (II), Pd[,] (II), and Co(II).

Claim 18 (previously presented): The catalytic system as recited in claim 17, wherein M is Ti (IV) or Zr (IV).

Claim 19 (currently amended): The catalytic system as recited in claim 12, wherein X is selected from the group consisting of F, Cl, Br, I, nitrogen atom-containing moiety, boron atom-containing moiety, **and** oxygen atom-containing moiety.

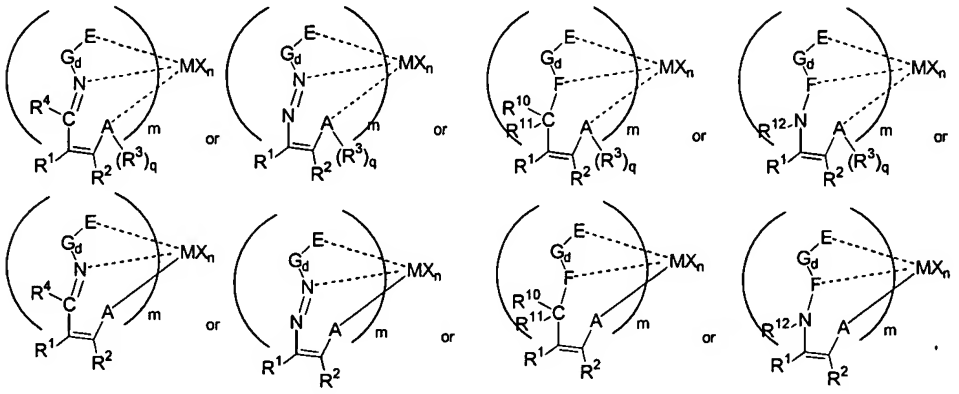
Claim 20 (currently amended): The catalytic system as recited in claim 12, wherein the catalyst has the following formula:



wherein

F represents a metal-coordinating moiety selected from the group consisting of an oxygen atom-containing moiety, a sulfur atom-containing moiety, **and** a selenium atom-containing moiety~~, and a phosphorus atom-containing moiety~~.

Claim 21 (previously presented): The catalytic system as recited in claim 20, wherein the catalyst has the following formula:

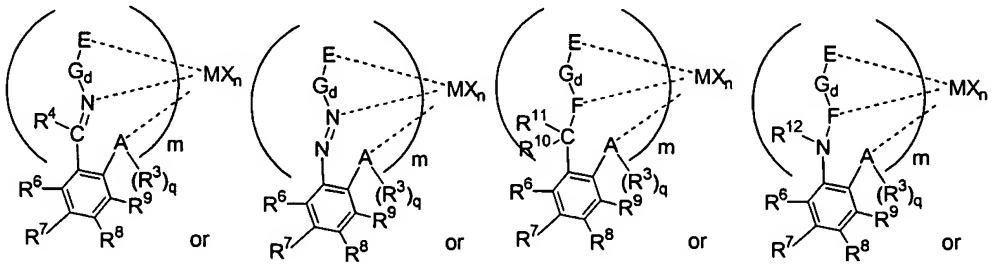


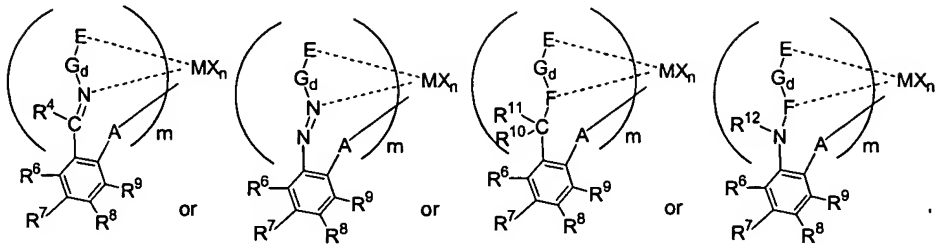
wherein:

R^4, R^{10}, and R^{11} each individually represents hydrogen or a chemically inert substituted or unsubstituted hydrocarbyl moiety, R^{10} and R^{11} being optionally linked to form a ring; and

R^{12} represents hydrogen or a chemically inert substituted or unsubstituted hydrocarbyl moiety.

Claim 22 (previously presented): The catalytic system as recited in claim 20, wherein the catalyst has the following formula:

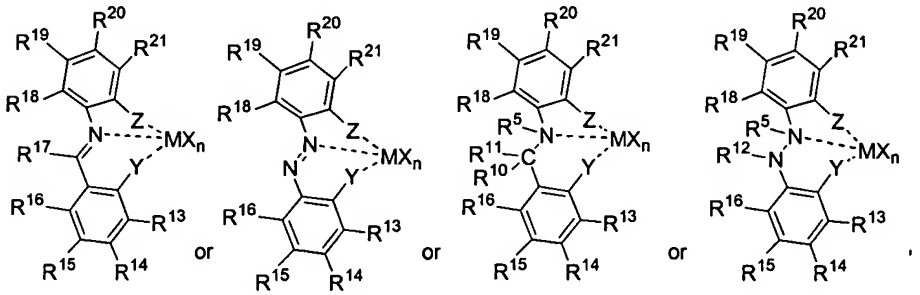




wherein:

R^6, R^7, R^8, R^9 each independently hydrogen, halogen, a chemically inert substituted or unsubstituted hydrocarbyl moiety, or a chemically inert functional group; any two adjacent R^6, R^7, R^8, R^9 moieties being optionally linked to form a ring.

Claim 23 (currently amended): The catalytic system as recited in claim 12, wherein the catalyst has the following formula:



wherein:

R^{10}, R^{11}, R^{12}, and R^{17} each individually represents hydrogen, halogen, substituted hydrocarbyl moiety, or a chemically inert function group, R^{10} and R^{11} being optionally linked to form a ring;

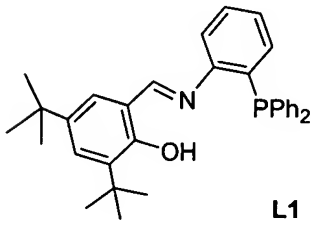
R^{13}, R^{14}, R^{15}, R^{16}, R^{18}, R^{19}, R^{20}, R^{21} each independently represents hydrogen, halogen, a chemically inert substituted or unsubstituted hydrocarbyl moiety, or a

chemically inert functional group; any two adjacent R^{13}, R^{14}, R^{15}, R^{16}, R^{18}, R^{19}, R^{20}, R^{21} moieties being optionally linked to form a ring;

R^5 represents a lone pair nitrogen atom electron, hydrogen, or a metal-coordinating moiety containing an oxygen atom, a sulfur atom, a selenium atom, or a phosphorus atom; and

Y and Z each independently represents a metal-coordinating moiety selected from the group consisting of an oxygen atom-containing moiety, a sulfur atom-containing moiety, a selenium atom-containing moiety, a nitrogen atom-containing moiety, and a phosphorus atom-containing moiety.

Claim 24 (currently amended): The catalytic system as recited in claim 12, wherein said tridentate ligand is **prepared from a ligand** selected from the group consisting of



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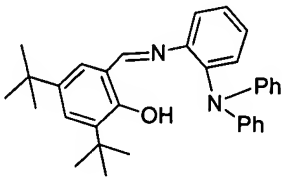

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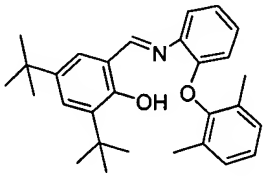

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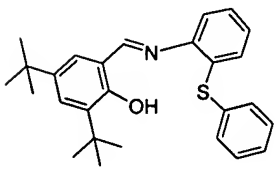

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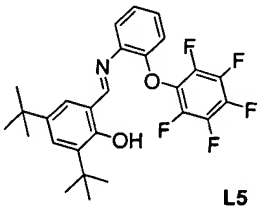

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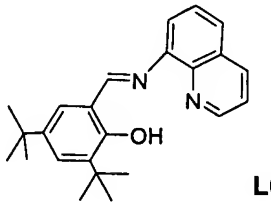

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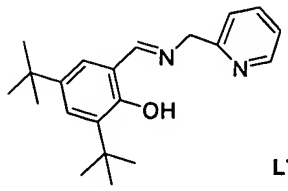

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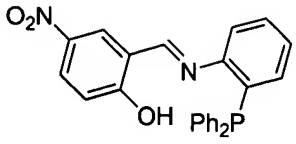

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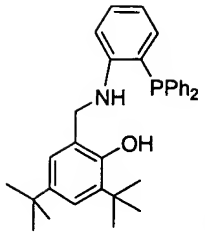

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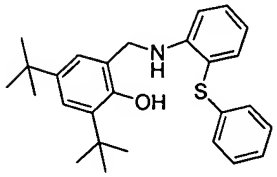

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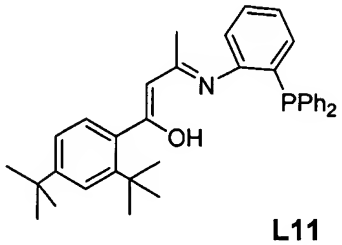

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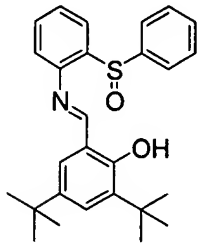

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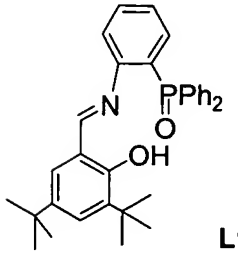

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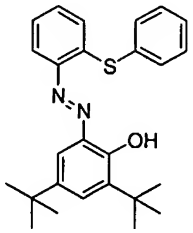

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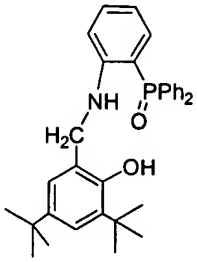

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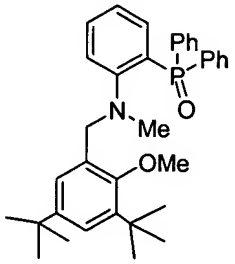

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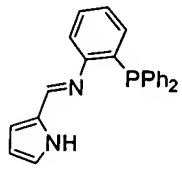

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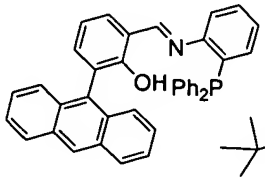

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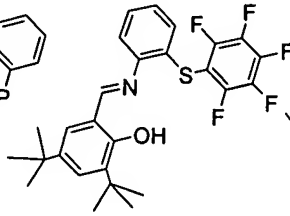

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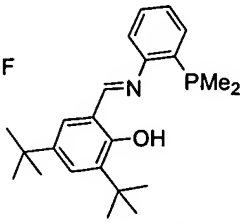

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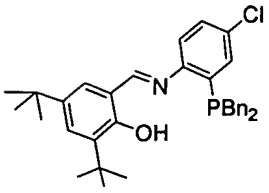

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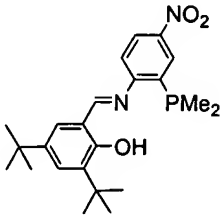

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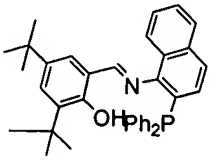

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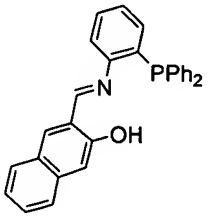

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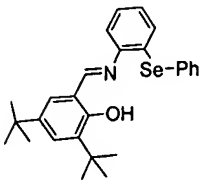

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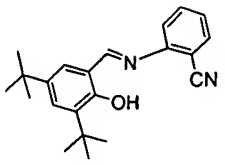

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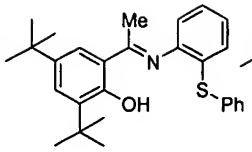

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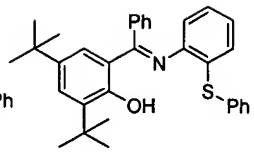

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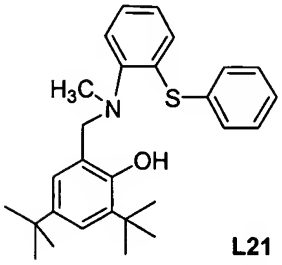

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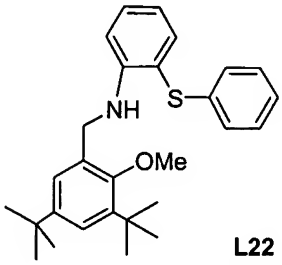

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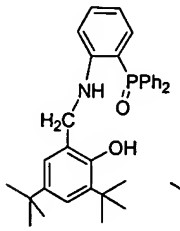

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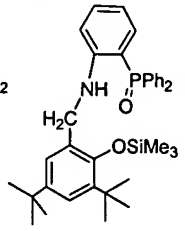

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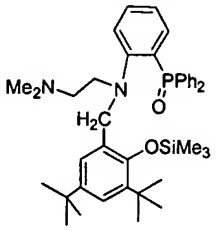

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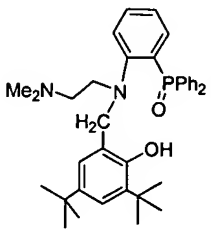

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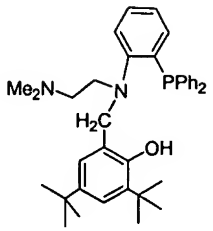

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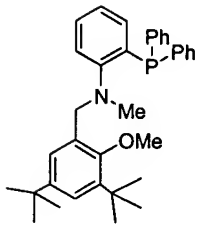
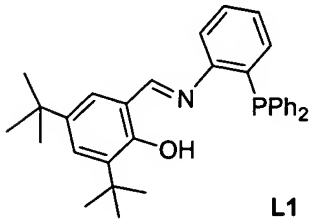
and



L17.

Claim 25 (currently amended): The catalytic system as recited in claim 24, wherein said tridentate ligand is **prepared from a ligand that is**



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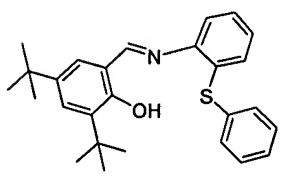

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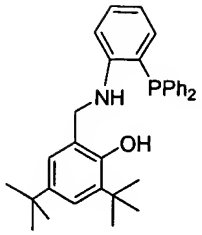

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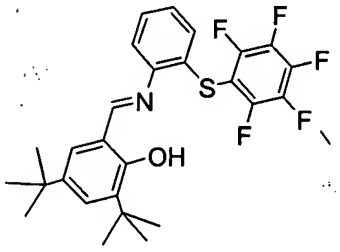

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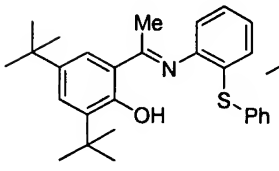

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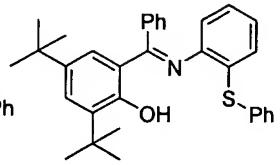

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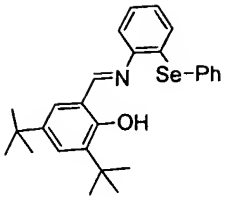
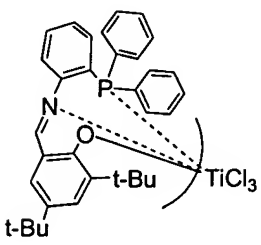
or



L33

Claim 26 (previously presented): The catalytic system as recited in claim 12, wherein said catalyst is selected from the group consisting of



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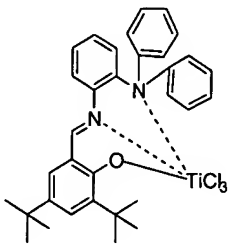

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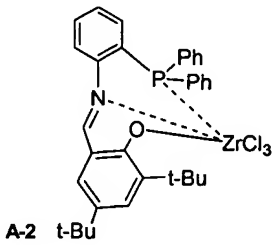

A-2 t-Bu

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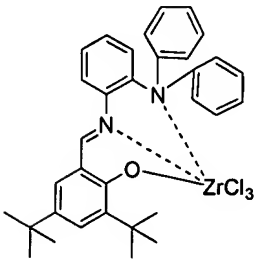

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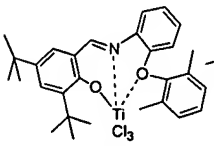

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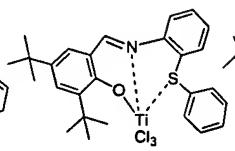

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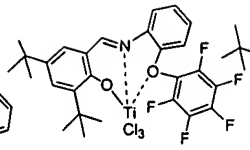

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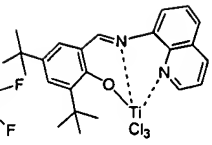

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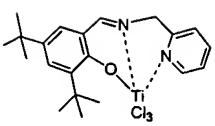

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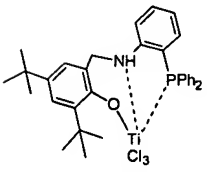

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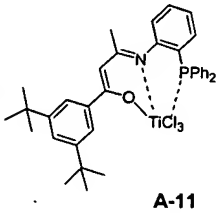

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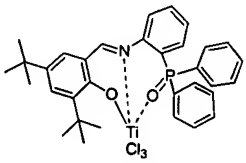

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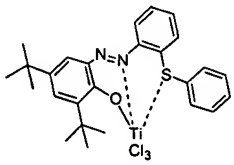

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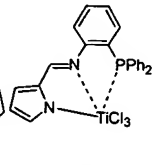

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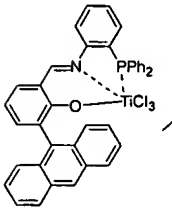

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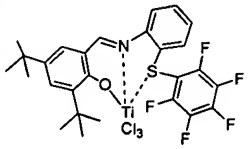

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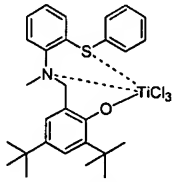

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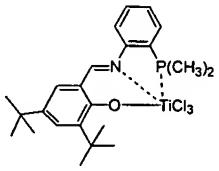

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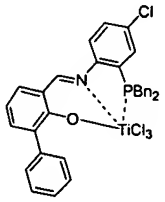

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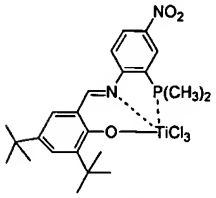

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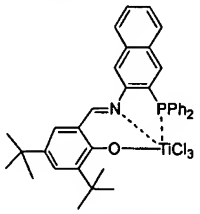

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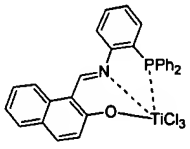

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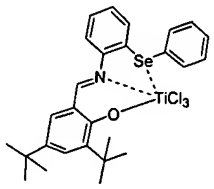

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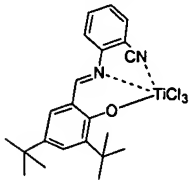

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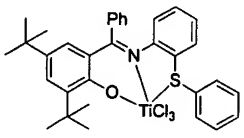

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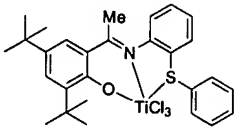

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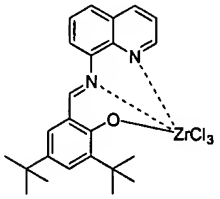

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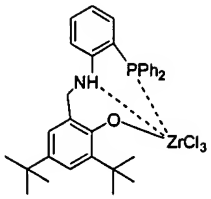

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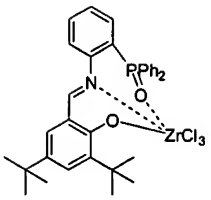

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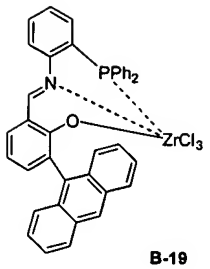

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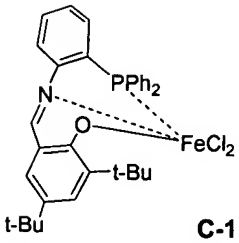

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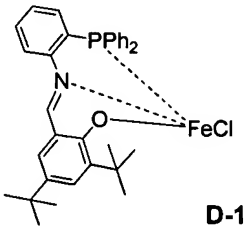

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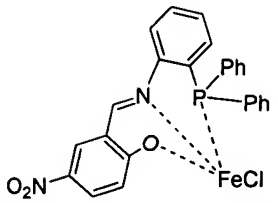

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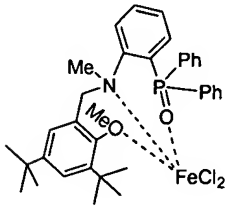

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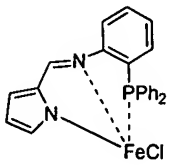

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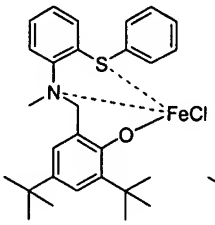

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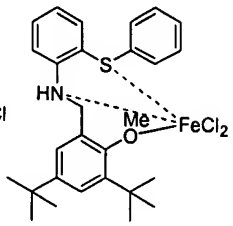

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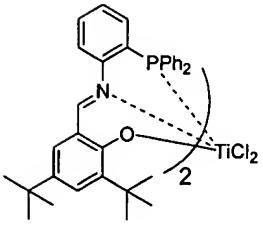

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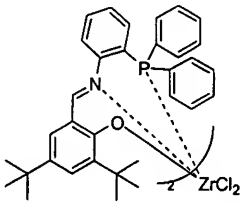
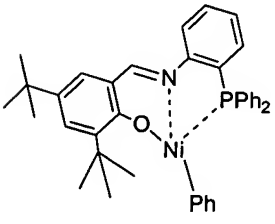
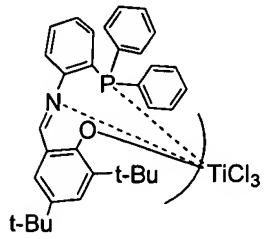


G-1 and



H-1.

Claim 27 (previously presented): The catalytic system as recited in claim 26, wherein said catalyst is



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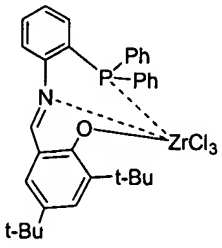

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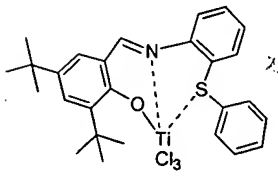

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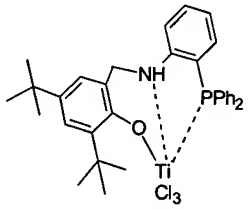

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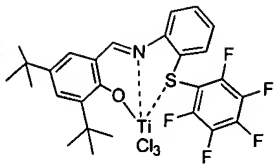

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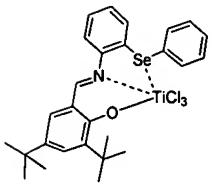

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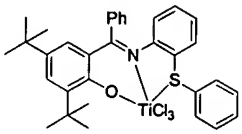

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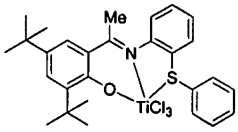

A-36

Claim 28 (previously presented): The catalytic system as recited in claim 12, wherein the catalyst is a homogeneous catalyst or a heterogeneous catalyst.

Claim 29 (previously presented): The catalytic system as recited in claim 12, further comprising a solid support.

Claim 30 (previously presented): The catalytic system as recited in claim 29, wherein said solid support is an organic polymeric material or an inorganic material.

Claim 31 (previously presented): The catalytic system as recited in claim 30, wherein said solid support is an inorganic material selected from the group consisting of silica, alumina, titania, magnesium chloride, and mixtures thereof.

Claim 32 (previously presented): The catalytic system as recited in claim 28, further comprising a co-catalyst.

Claim 33 (currently amended): The catalytic system as recited in claim 32, wherein said co-catalyst is a methyl aluminoxane (MAO), ~~or~~ a modified methyl aluminozane (MAO), **an** alkyl aluminum compound, boron alkyl, **or a** ~~the~~ metal salt of BF_4^-, $(C_6F_5)_4B^-$ **, or** ~~and~~ $(R_{40}BAr_3)^-$.

Claim 34 (withdrawn): A process for polymerizing an olefin or a mixture of olefins or copolymerization in the presence of the catalytic system as recited in claim 32.

Claim 35 (withdrawn): The process as recited in claim 34, wherein said process is carried out at a pressure of 0.1 Mpa to 10 Mpa and a temperature of -50°C to 150°C.

Claim 36 (withdrawn): The process as recited in claim 34, wherein said process is carried out at a catalyst : co-catalyst mole ratio of 1:1 to 1:5000.

Claim 37 (withdrawn): The process as recited in claim 36, wherein said process is carried out at a catalyst : co-catalyst mole ratio of 1:10 to 1:2000.

Claim 38 (withdrawn): The process as recited in claim 34, wherein said olefin or mixture of olefins is selected from the group consisting of ethylene, alkenes and functionalized alkenes containing 3 to 30 carbons, cycloalkenes, norbornene and derivatives thereof, dienes, acetylenes, styrene, alkenols, alkenoic acids and derivatives thereof, acrylic monomers, and mixtures thereof.

Claim 39 (withdrawn): The process as recited in claim 38, wherein said olefin is ethylene, propylene hexene, norbornene, or methyl methacrylate.

Claim 40 (withdrawn): The process as recited in claim 39, wherein said olefin is ethylene.